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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,437	04/26/2001	Rogelio Delgado JR.	3838-33689	9358

7590

04/21/2005

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EXAMINER

LE, HUYEN D

ART UNIT

PAPER NUMBER

2643

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/843,437

Applicant(s)

DELGADO, ROGELIO

Examiner

HUYEN D. LE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 January 1936.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasajima et al. (U.S. patent 5,432,860).

Regarding claims 1-4, 6-7, 23-26 and 35-36, Kasajima teaches a method and apparatus of an acoustic horn assembly that comprises an acoustic horn (36, 48, 60, figures 5, 9, 11-13) for generating a sound pressure level at a given frequency (col. 4, lines 62-68), and sound absorbing material (40-1, 40-2, 50-1, 50-2, 52-1, 52-2, 60) as claimed. As shown in the drawings, the sound absorbing material is operationally connected to the acoustic horn (also see col. 4, lines 3-7).

Kasajima does not specifically teach the sound absorbing material for assisting the acoustic horn in directing a desired sound pressure level as claimed.

However, Kasajima does teach the sound absorbing material to be connected to the horn for guiding the sound forwardly to the front side of the cabinet (col. 4, lines 3-7), and the relationship between the frequency of the speaker system and the sound pressure level (figure 10).

Therefore, it would have been obvious to one skilled in the art to provide the sound absorbing material for assisting the horn (36, 48, 60) in directing a desired sound pressure level

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toward any desired location at the front side of the cabinet for the improved frequency characteristics and sound coverage field.

Regarding claims 5 and 21, Kasajima does not specifically teach the sound pressure level as claimed. However, it would have been obvious to one skilled in the art to provide any level for the sound pressure in the Kasajima system such as the sound absorbing material that decreases the sound pressure level beyond the first -6 dB down angle for the desired sound pressure levels and the desired frequency characteristics.

Regarding claims 8 and 10, the acoustic horn of Kasajima is constructed of wood or plastic material (col. 3, lines 49-50).

Regarding claim 9, Kasajima does not teach the horn that is constructed of fiberglass material as claimed. However, Kasajima does teach different kinds of materials that could be constructed for the horn (col. 3, lines 49-51).

Therefore, it would have been obvious to one skilled in the art to provide a different type of material such as fiberglass material for an alternate choice and providing the desired frequency characteristics for the system.

Regarding claims 27-29, Kasajima does not teach the sound absorbing material that is defined by open cell or reticulated foam as claimed. However, Kasajima does teach different kinds of materials that could be made for the sound absorbing material (col. 3, lines 45-46, col. 4, lines 42-44 and col. 6, lines 45-46). Further, providing open cell foam for the sound absorbing material is known in the art.

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Therefore, it would have been obvious to one skilled in the art to provide a different type of material such as open cell or reticulated foam for an alternate choice and providing the desired frequency characteristics for the system.

Regarding claims 11-20 and 22, Kasajima teaches an acoustic horn assembly that comprises an acoustic horn (36, 48, 60) for generating a sound pressure level at a given frequency (col. 4, lines 62-68), sound absorbing material (40-1, 40-2, 50-1, 50-2, 52-1, 52-2, 60), and a cabinet enclosure (32) as claimed figures (5, 9, 11-13). As shown in the drawings, the sound absorbing material is operationally connected to the acoustic horn.

Kasajima does not specifically teach the sound absorbing material for assisting the acoustic horn in directing a desired sound pressure level as claimed.

However, Kasajima does teach the sound absorbing material to be connected to the horn for guiding the sound forwardly to the front side of the cabinet (col. 4, lines 3-7), and the relationship between the frequency of the speaker system and the sound pressure level (figure 10).

Therefore, it would have been obvious to one skilled in the art to provide the sound absorbing material for assisting the horn (36, 48, 60) of Kasajima in directing a desired sound pressure level toward any desired location at the front side of the cabinet for the improved frequency characteristics and sound coverage field.

Regarding claims 30-34, Kasajima teach one acoustic horn assembly that comprises the acoustic horn and the sound absorbing material as mentioned above. Kasajima does not specifically disclose a plurality of horn assemblies as claimed. However, it would have been

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obvious to one skilled in the art to provide multiple acoustic horn assemblies that are constructed in an array for providing a powerful speaker system.

***Response to Arguments***

3. Applicant's arguments filed 08/16/2004 have been fully considered but they are not persuasive.

Responding to the arguments about the sound absorbing in Kasajima, the Examiner refers to the Office Action. Further, the Applicant should note that Kasajima does teach the sound absorbing members that are shaped in accordance with the shape of the acoustic horn for guiding the sound forwardly to the front side of the cabinet (col. 4, lines 3-7). As shown in the drawings, the sound absorbing material operationally connected to the horn (36, 48, 60).

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUYEN D. LE whose telephone number is (703) 305-4844. The examiner can normally be reached on 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CURTIS KUNTZ can be reached on (703) 305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HL  
April 1, 2005

  
HUYEN LE  
PRIMARY EXAMINER